

B.Sc. (C.B.C.S. Pattern) Sem-I
MIC-01 - Microbiology Paper-I
(Fundamentals of Microbiology)

P. Pages : 2
Time : Three Hours



GUG/W/19/11558
Max. Marks : 50

- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw diagrams wherever necessary.

1. Describe Louis Pasteur contribution in detail in development of Microbiology. **10**

OR

- a) What are Koch's Postulates. **2½**
- b) Write note on Dust free box. **2½**
- c) Write short note on Antony Van Leeuwenhoek. **2½**
- d) Describe F. Redi experiments in support of Biogenesis. **2½**

2. Describe structure of cell wall of Gram positive bacteria in detail. **10**

OR

- a) Write note on fluid mosaic model of cytoplasmic membrane. **2½**
- b) Write note on capsule and slime layer. **2½**
- c) Differentiate Prokaryotic cell with Eukaryotic cell. **2½**
- d) Describe structure of flagella of gram negative bacteria. **2½**

3. Describe any two methods of classification of bacteria. **10**

OR

- a) Write note on general criteria used for bacterial classification. **2½**
- b) Write note on Whittaker concept of bacterial taxonomy. **2½**
- c) Write short note on Bergey's manual of determinative and systematic bacteriology. **2½**
- d) Write about family, order, Division and Kingdom in short. **2½**

4. Describe lytic cycle of T₄ phage multiplication. **10**

OR

- a) Describe chick embryo method of virus cultivation. 2½
- b) Write note on general characteristics of fungi. 2½
- c) Write note on general characteristics of viruses. 2½
- d) Write note on methanogens and Thermophiles. 2½

5. Solve any ten.

- a) What is superbug. 1
- b) Who discovered mycobacterium tuberculosis. 1
- c) What is phagocytosis. 1
- d) What is peptidoglycan. 1
- e) Write any two examples of endospore producing bacteria. 1
- f) What are plasmid. 1
- g) Who proposed three Kingdom system. 1
- h) What is taxa. 1
- i) What is strain. 1
- j) What is LHT classification of Virus. 1
- k) What are Archaeobacteria. 1
- l) What are Halophiles. 1
